February 26, 1996

MEMORANDUM

TO: Orville D. Green, Assistant Administrator
Permits and Enforcement

FROM: Brian R. Monson, Chief
Operating Permits Bureau

SUBJECT: Issuance of Tier II Operating Permit #001-00030 to IBP, Incorporated, Kuna, Idaho

PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 (Rules for the controls of Air Pollution in Idaho) for issuing Operating Permits.

PROJECT DESCRIPTION

This project is for the issuance of a Tier II Operating Permit (OP) for IBP facility located in Kuna, Idaho, in order to establish the facility as a synthetic minor source. The emissions sources of the facility are two (2) steam boilers, five (5) cookers, five (5) space heaters, one (1) water heater, one (1) blood dryer, one (1) hide down puller, a blood conveying system, and meat scraps handling. Paved roads are the only fugitive emission source found at the facility.

SUMMARY OF EVENTS

On January 17, 1995, DEQ received a Tier II OP application from IBP - Kuna, Idaho. A resubmittal was received on May 15, 1995. Additional information was received on October 2, 1995. The application was declared complete on November 3, 1995. More information, related to the application, was obtained over the phone from Mr. Kim Dirks on December 20, 1995. On December 29, 1995, a proposed Tier II OP was issued for public comment. A public comment period was then held from January 19, 1996, to February 20, 1996.

On February 1, 1996, DEQ received comments about the content of the proposed OP. These comments were addressed by DEQ in the response package and the technical analysis memo and incorporated into the final OP.

RECOMMENDATIONS

Based on the review of the OP application, and on applicable state and federal regulations concerning the permitting of air pollution sources, the Bureau staff recommends that IBP, Inc., Kuna, Idaho, be issued a Tier II OP. Staff also recommends that the facility be notified in writing of the obligation to pay permit application fees for the Tier II permit.

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cc: J. Palmer, SWIRO
OP File Manual
Source File
COF

February 26, 1996

MEMORANDUM

TO: Brian R. Monson, Chief
Operating Permits Bureau
Permits and Enforcement

FROM: Camille D. Ajaka, Air Quality Engineer
Operating Permits Bureau

THROUGH: Susan J. Richards, Air Quality Permits Manager
Operating Permits Bureau

SUBJECT: Technical Analysis for Tier II Operating Permit #001-00030, IBP, Incorporated, Kuna, Idaho

PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 16.01.01 Sections 400 through 406 (Rules for the Control of Air Pollution in Idaho) for issuing Operating Permits.

FACILITY DESCRIPTION

IBP, Inc. - Kuna, is a beef processing and rendering plant. The plant processes about 180 head of cattle per hour. The cattle are butchered, cleaned, split in half, frozen, and sent to Pasco, Washington, for further processing. The hides are removed and sent to Pacific Hides in Nampa, Idaho, The contents of the stomach are removed and piped to a truck loadout where it is hauled to be landapplied. The Viscera is ground up and rendered. The rendered material is separated into liquid and solid products. The edible part is used for deep fat frying, while the inedible part and dried blood are used for dog food and fertilizer.

PROJECT DESCRIPTION

This project is for an Operating Permit (OP) for the following existing point and fugitive emission sources.

Point Sources:

(1) East Boiler Stack: Emissions from the East boiler are uncontrolled. The stack data are the following:

UTM-X Coordinate (KM)	559.791
UTM-Y Coordinate (KM)	4809.309
Stack Exit Height (ft)	50.0
Stack Exit Diameter (ft)	2.5
Stack Exit Flow Rate (ACFM)	11,500
Stack Exit Temperature (°F)	450

(2) West Boiler Stack: Emissions from the West boiler are uncontrolled. The stack data are the following:

UTM-X Coordinate (KM)	559.797
UTM-Y Coordinate (KM)	4809.306
Stack Exit Height (ft)	50.0
Stack Exit Diameter (ft)	2.5
Stack Exit Flow Rate (ACFM)	11,500
Stack Exit Temperature (°F)	450

(3) Blood Dryer and Cookers Stack: Emissions from this stack are controlled by a Wet Scrubber and a Packed Tower connected in series. The stack data are the following:

UTM-X Coordinate (KM)	559.880
UTM-Y Coordinate (KM)	4809.277
Stack Exit Height (ft)	41.0
Stack Exit Diameter (ft)	4.3 x 3.25
Stack Exit Flow Rate (ACFM)	11,500
Stack Exit Temperature (°F)	58

(4) Hide Down Puller Stack: Emissions from this stack are controlled by a Wet Cyclone Scrubber. The stack data are the following:

UTM-X Coordinate (KM)	559.802
UTM-Y Coordinate (KM)	4809.300
Stack Exit Height (ft)	36.0
Stack Exit Diameter (ft)	0.83
Stack Exit Flow Rate (ACFM)	14,400
Stack Exit Temperature (°F)	Ambient

(5) Meat Scraps Handling Stack: Emissions from this stack are controlled by a Bag Filter. The stack data are the following:

UTM-X Coordinate (KM)	559.857
UTM-Y Coordinate (KM)	4809.309
Stack Exit Height (ft)	20.0
Stack Exit Diameter (ft)	0.5
Stack Exit Flow Rate (ACFM)	500
Stack Exit Temperature (°F)	Ambient

(6) Blood Conveying Stack: Emissions from this stack are controlled by a Bag Filter. The stack data are the following:

UTM-X Coordinate (KM)	559.854
UTM-Y Coordinate (KM)	4809.280
Stack Exit Height (ft)	20.0
Stack Exit Diameter (ft)	0.5
Stack Exit Flow Rate (ACFM)	500
Stack Exit Temperature (°F)	Ambient

(7) Electric Generator #1 Stack: Emissions from this stack are uncontrolled. The stack data are the following:

UTM-X Coordinate (KM)	559.771
UTM-Y Coordinate (KM)	4809.323
Stack Exit Height (ft)	5.0
Stack Exit Diameter (ft)	(2) @ 0.2
Stack Exit Flow Rate (ACFM)	---
Stack Exit Temperature (°F)	700

(8) Electric Generator #2 Stack: Emissions from this stack are uncontrolled. The stack data are the following:

UTM-X Coordinate (KM)	559.777
UTM-Y Coordinate (KM)	4809.334
Stack Exit Height (ft)	6.0
Stack Exit Diameter (ft)	0.25
Stack Exit Flow Rate (ACFM)	---
Stack Exit Temperature (°F)	700

(9) Fire Pump Stack: Emissions from this stack are uncontrolled. The stack data are the following:

UTM-X Coordinate (KM)	559.806
UTM-Y Coordinate (KM)	4809.426
Stack Exit Height (ft)	6.0
Stack Exit Diameter (ft)	0.33
Stack Exit Flow Rate (ACFM)	---
Stack Exit Temperature (°F)	700

Fugitive Sources:

(1) Haul roads

A more detailed process description can be found in the OP application materials and in the facility's source file.

SUMMARY OF EVENTS

On January 17, 1995, DEQ received a Tier II OP application from IBP - Kuna, Idaho. A resubmittal was received on May 15, 1995. Additional information was received on October 2, 1995. The application was declared complete on November 3, 1995. More information, related to the application, was obtained over the phone from Mr. Kim Dirks on December 20, 1995. A public comment period was held from January 21, 1996, until February 20, 1996, on the air quality aspects of the proposed permit.

DISCUSSION

1. Emission Estimates

Emission estimates were provided by IBP, Inc. The calculations were resubmitted by the applicant according to DEQ request. DEQ also estimated the emissions from all the sources of the facility (attached spreadsheet). The hourly emissions calculations were based on the maximum production rate of each equipment/process. The annual emissions calculations were based on the annual operating time, the type and amount of fuel used, or the production rate of the specific equipment/process.

All emissions from fuel burning equipment were estimated using emissions factors furnished by AP-42, 5th edition. AP-42 does not have specific emissions factors for Meat Rendering Plants. The best engineering judgment was used to estimate the emissions from the different plant processes. Emissions of particulate matter from solid material transfer (Meat Scraps Handling and Blood Conveying) were estimated using emissions factors from AP-42, 4th edition, Section 6.4 (Grain Elevators and Processing Plants). This is a conservative approach made by the facility to estimate emissions from Meat Scraps Handling and Blood Conveying. Emissions of particulate matter from process and manufacturing operations, such as the Cookers, were estimated using IDAPA 16.01.01.700, Particulate Matter - Process Weight Limitations. The emissions limits were used as uncontrolled emissions factors and then the particulate emissions were estimated by applying the efficiencies of the control equipment. This approach is a very conservative approach for emissions estimates from the corresponding processes. Emissions limits for the Hide Down Puller and the Blood Dryer were taken from the corresponding Permits to Construct.

2. Modeling

No modeling for impact analysis for the various emissions from the facility's point sources was performed.

3. Area Classification

IBP - Kuna, Ada County, Idaho is located in AQCR 64. The area is classified as non-attainment for PM-10 and CO.

4. Facility Classification

The facility is not a designated facility as defined in IDAPA 16.01.01.006.25. The facility is classified as an A2 source because the actual emissions of any criteria pollutant is less than 100 tons per year (T/yr).

5. Regulatory Review

This OP is subject to the following permitting requirements:

a.	IDAPA 16.01.01.401	Tier II Operating Permit
b.	IDAPA 16.01.01.403	Permit Requirements for Tier II Sources
c.	IDAPA 16.01.01.404.01(c)	Opportunity for Public Comment
d.	IDAPA 16.01.01.404.04	Authority to Revise or Renew Operating Permits
e.	IDAPA 16.01.01.406	Obligation to Comply
f.	IDAPA 16.01.01.470	Permit Application Fees for Tier II Permits
g.	IDAPA 16.01.01.625	Visible Emission Limitation
h.	IDAPA 16.01.01.650	General Rules for the Control of Fugitive Dust
i.	IDAPA 16.01.01.675	Fuel Burning Equipment - Particulate Matter
j.	IDAPA 16.01.01.700	Particulate Matter -- Process Weight Limitations
k.	IDAPA 16.01.01.725	Rules for Sulfur Content in Fuels
l.	IDAPA 16.01.01.775	Rules for Control of Odor
m.	IDAPA 16.01.01.835	Rules for Control of Rendering Plants

FEES

Fees apply to this facility in accordance with IDAPA 16.01.01.470. The facility is subject to permit application fees for Tier II permits of five hundred dollars ($500.00). IDAPA 16.01.01.470 became effective on March 7, 1995.

RECOMMENDATIONS

Based on the review of the Tier II Operating Permit application and of applicable state and federal regulations concerning the permitting of air pollution sources, the Bureau staff recommends that IBP, Inc. - Kuna, Idaho, be issued a Tier II Operating Permit for the sources that are described in the facility's permit application. Staff also recommends that the facility be notified of the Tier II permit fee requirement in writing. This fee will be applicable upon issuance of the permit.

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cc: J. Palmer, SWIRO
Source File
COF

IBP, Inc.
P. O. Box 515
Dakota City, NE 68731

Contact Person: Kim Dirks
Tel #: (402)241-2036
PTC #: 001-00030

Operating Permit Application

Emissions from Fuel Burning Equipment *Boilers*

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date	Natural Gas Op. Hours
East Boiler	25.2	0.024	180				7222.222	1972	8760

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	13.7	T 1.4-1	none	0	0.360	1.300	0.329	1.440
PM-10	1	T 1.3-2	13.7	T 1.4-1	none	0	0.180	0.650	0.329	1.440
SO_x	72	T 1.3-2	0.6	T 1.4-2	none	0	12.960	46.800	0.014	0.063
NOx	20	T 1.3-2	140	T 1.4-2	none	0	3.600	13.000	3.360	14.717
CO	5	T 1.3-2	35	T 1.4-2	none	0	0.900	3.250	0.840	3.679
VOC	0.2	T 1.3-4	2.784	T 1.4-3	none	0	0.036	0.130	0.067	0.293

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date	Natural Gas Op. Hours
West Boiler	25.2	0.024	180				7222.222	1972	8760

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	13.7	T 1.4-1	none	0	0.360	1.300	0.329	1.440
PM-10	1	T 1.3-2	13.7	T 1.4-1	none	0	0.180	0.650	0.329	1.440
SO_x	72	T 1.3-2	0.6	T 1.4-2	none	0	12.960	46.800	0.014	0.063
NOx	20	T 1.3-2	140	T 1.4-2	none	0	3.600	13.000	3.360	14.717
CO	5	T 1.3-2	35	T 1.4-2	none	0	0.900	3.250	0.840	3.679
VOC	0.2	T 1.3-4	2.784	T 1.4-3	none	0	0.036	0.130	0.067	0.293

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
Blood Dryer	2.6	0.0025	0				8760	1984

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	12	T 1.4-1	Scrubber	90	0.000	0.000	0.003	0.013
PM-10	1	T 1.3-2	12	T 1.4-1	Scrubber	90	0.000	0.000	0.003	0.013
SO_x	72	T 1.3-2	0.6	T 1.4-2	Scrubber	0	0.000	0.000	0.002	0.007
NOx	20	T 1.3-2	100	T 1.4-2	Scrubber	0	0.000	0.000	0.250	1.095
CO	5	T 1.3-2	21	T 1.4-2	Scrubber	0	0.000	0.000	0.053	0.230
VOC	0.34	T 1.3-4	3.84	T 1.4-3	Scrubber	0	0.000	0.000	0.010	0.042
Total PM							0.720	2.600	0.661	2.893
Total PM-10							0.360	1.300	0.661	2.893
Total SO_2							25.920	93.600	0.030	0.133
Total NOx							7.200	26.000	6.970	30.529
Total CO							1.800	6.500	1.733	7.588
Total VOC							0.072	0.260	0.143	0.627

Emissions from Fuel Burning Equipment *Heaters*

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
South Kill	3	0.003	0				8760	1984

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.036	0.158
PM-10	1	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.036	0.158
SO_x	72	T 1.3-2	0.6	T 1.4-2	none	0	0.000	0.000	0.002	0.008
NOx	20	T 1.3-2	100	T 1.4-2	none	0	0.000	0.000	0.300	1.314
CO	5	T 1.3-2	21	T 1.4-2	none	0	0.000	0.000	0.063	0.276
VOC	0.34	T 1.3-4	3.84	T 1.4-3	none	0	0.000	0.000	0.012	0.050

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
West Kill	5	0.005	0				8760	1978

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.060	0.263
PM-10	1	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.060	0.263
SO_2	72	T 1.3-2	0.6	T 1.4-2	none	0	0.000	0.000	0.003	0.013
NOx	20	T 1.3-2	100	T 1.4-2	none	0	0.000	0.000	0.500	2.190
CO	5	T 1.3-2	21	T 1.4-2	none	0	0.000	0.000	0.105	0.460
VOC	0.34	T 1.3-4	3.84	T 1.4-3	none	0	0.000	0.000	0.019	0.084

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
Box Storage	1.7	0.0017	0				8760	1981

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.020	0.089
PM-10	1	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.020	0.089
SO_2	72	T 1.3-2	0.6	T 1.4-2	none	0	0.000	0.000	0.001	0.004
NOx	20	T 1.3-2	100	T 1.4-2	none	0	0.000	0.000	0.170	0.745
CO	5	T 1.3-2	21	T 1.4-2	none	0	0.000	0.000	0.036	0.156
VOC	0.34	T 1.3-4	3.84	T 1.4-3	none	0	0.000	0.000	0.007	0.029

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
West Hotsy	0.54	0.00054	0				8760	1974

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.006	0.028
PM-10	1	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.006	0.028
SO_2	72	T 1.3-2	0.6	T 1.4-2	none	0	0.000	0.000	0.000	0.001
NOx	20	T 1.3-2	100	T 1.4-2	none	0	0.000	0.000	0.054	0.237
CO	5	T 1.3-2	21	T 1.4-2	none	0	0.000	0.000	0.011	0.050
VOC	0.34	T 1.3-4	3.84	T 1.4-3	none	0	0.000	0.000	0.002	0.009

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
Hartzel	4.95	0.00495	0				8760	1994

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.059	0.260
PM-10	1	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.059	0.260
SO_2	72	T 1.3-2	0.6	T 1.4-2	none	0	0.000	0.000	0.003	0.013
NOx	20	T 1.3-2	100	T 1.4-2	none	0	0.000	0.000	0.495	2.168
CO	5	T 1.3-2	21	T 1.4-2	none	0	0.000	0.000	0.104	0.455
VOC	0.34	T 1.3-4	3.84	T 1.4-3	none	0	0.000	0.000	0.019	0.083

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	#2 hourly gal/hr	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
Hasting	0.6	0.0006	0				8760	1979

Pollutant	E. Factor lb/10³gal	Reference AP-42, 5th	E. Factor lb/10⁶ ft³	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	#2 Fuel Oil Hourly E. lb/hr	#2 Fuel Oil Annual E. ton/yr	Natural Gas Hourly E. lb/hr	Natural Gas Annual E. ton/yr
PM	2	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.007	0.032
PM-10	1	T 1.3-2	12	T 1.4-1	none	0	0.000	0.000	0.007	0.032
SO_2	72	T 1.3-2	0.6	T 1.4-2	none	0	0.000	0.000	0.000	0.002
NOx	20	T 1.3-2	100	T 1.4-2	none	0	0.000	0.000	0.060	0.263
CO	5	T 1.3-2	21	T 1.4-2	none	0	0.000	0.000	0.013	0.055
VOC	0.34	T 1.3-4	3.84	T 1.4-3	none	0	0.000	0.000	0.002	0.010
Total PM							0.000	0.000	0.189	0.830
Total PM-10							0.000	0.000	0.189	0.830
Total SO_2							0.000	0.000	0.009	0.041

Total NOx	0.000	0.000	1.579	6.916
Total CO	0.000	0.000	0.332	1.452
Total VOC	0.000	0.000	0.061	0.266

Emissions from Fuel Burning Equipment ***Generators***

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	Diesel gal/hr	Deisel H.V. Btu/gal	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
Gen. 1	0.170605	0	4	138000				500	1975

							Diesel Fuel		Natural Gas	
Pollutant	E. Factor lb/10^6Btu	Reference AP-42, 5th	E. Factor lb/10^6 ft^3	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	Hourly E. lb/hr	Annual E. ton/yr	Hourly E. lb/hr	Annual E. ton/yr
PM	0.31	T 3.3-2	12	T 1.4-1	none	0	0.171	0.043	0.000	0.000
PM-10	0.31	T 3.3-2	12	T 1.4-1	none	0	0.171	0.043	0.000	0.000
SO_x	0.29	T 3.3-2	0.6	T 1.4-2	none	0	0.160	0.040	0.000	0.000
NOx	4.41	T 3.3-2	100	T 1.4-2	none	0	2.434	0.609	0.000	0.000
CO	0.95	T 3.3-2	21	T 1.4-2	none	0	0.524	0.131	0.000	0.000
VOC	0.36	T 3.3-2	3.84	T 1.4-3	none	0	0.199	0.050	0.000	0.000

Source	Size MMBtu/hr	N.G. Hourly MMcf/hr	Diesel gal/hr	Deisel H.V. Btu/gal	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
Gen. 2	0.1535445	0	4	138000				500	1989

							Diesel Fuel		Natural Gas	
Pollutant	E. Factor lb/10^6Btu	Reference AP-42, 5th	E. Factor lb/10^6 ft^3	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	Hourly E. lb/hr	Annual E. ton/yr	Hourly E. lb/hr	Annual E. ton/yr
PM	0.31	T 3.3-2	12	T 1.4-1	none	0	0.171	0.043	0.000	0.000
PM-10	0.31	T 3.3-2	12	T 1.4-1	none	0	0.171	0.043	0.000	0.000
SO_x	0.29	T 3.3-2	0.6	T 1.4-2	none	0	0.160	0.040	0.000	0.000
NOx	4.41	T 3.3-2	100	T 1.4-2	none	0	2.434	0.609	0.000	0.000
CO	0.95	T 3.3-2	21	T 1.4-2	none	0	0.524	0.131	0.000	0.000
VOC	0.36	T 3.3-2	3.84	T 1.4-3	none	0	0.199	0.050	0.000	0.000

Source	Size hp	N.G. Hourly MMcf/hr	Diesel gal/hr	Deisel H.V. Btu/gal	Operating Schedule hr/dy	dy/wk	wk/yr	Op. Hours hr/yr	Date
Fire Pump	136	0	8.4	138000				500	NA

							Diesel Fuel		Natural Gas	
Pollutant	E. Factor lb/10^6Btu	Reference AP-42, 5th	E. Factor lb/10^6 ft^3	Reference AP-42, 5th	Control Equipment	Cont. Eff. %	Hourly E. lb/hr	Annual E. ton/yr	Hourly E. lb/hr	Annual E. ton/yr
PM	0.31	T 3.3-2	12	T 1.4-1	none	0	0.359	0.090	0.000	0.000
PM-10	0.31	T 3.3-2	12	T 1.4-1	none	0	0.359	0.090	0.000	0.000
SO_x	0.29	T 3.3-2	0.6	T 1.4-2	none	0	0.336	0.084	0.000	0.000
NOx	4.41	T 3.3-2	100	T 1.4-2	none	0	5.112	1.278	0.000	0.000
CO	0.95	T 3.3-2	21	T 1.4-2	none	0	1.101	0.275	0.000	0.000
VOC	0.36	T 3.3-2	3.84	T 1.4-3	none	0	0.417	0.104	0.000	0.000
Total PM							0.702	0.175	0.000	0.000
Total PM-10							0.702	0.175	0.000	0.000
Total SO_2							0.656	0.164	0.000	0.000
Total NOx							9.981	2.495	0.000	0.000
Total CO							2.150	0.538	0.000	0.000
Total VOC							0.815	0.204	0.000	0.000

TOTAL EMISSIONS FROM FUEL BURNING EQUIPMENT

PM	1.422	2.775	0.850	3.723
PM-10	1.062	1.475	0.850	3.723
SO_2	26.576	93.764	0.040	0.174
NOx	17.181	28.495	8.549	37.445
CO	3.950	7.038	2.064	9.041
VOC	0.887	0.464	0.204	0.893

Pollution		PM	PM-10	SO2	NOx	CO	VOC
Hourly E.	(lb/hr)	2.272	1.912	26.616	25.730	6.014	1.091
Annual E.	(T/yr)	6.499	5.199	93.938	65.940	16.078	1.357

Emissions from Solid Material Transport

Source	Pollutant	Max. Hourly tons/hour	Act. Annual tons/year	Op. Time hr/yr	E. Factor lb/ton	Reference 4th ed.	Control Equipment	Cont. Eff. %	Hourly E. lb/hr	Annual E. ton/yr
Meat Scraps Handling	PM	25.5	8000	8760	0.3	T 6.4-1	Bag Filter	99	0.077	0.335
	PM-10	25.5	8000	8760	0.15	T 6.4-1	Bag Filter	99	0.038	0.168
Blood Conveying	PM	18	1750	8760	0.3	T 6.4-1	Bag Filter	99	0.054	0.237
	PM-10	18	1750	8760	0.15	T 6.4-1	Bag Filter	99	0.027	0.118

Emissions from Process and Manufacturing Operations

Source	Pollutant	Max. Hourly tons/hour	Act. Annual tons/year	Op. Time hr/yr	E. Factor lb/ton	Reference	Control Equipment	Cont. Eff. %	Hourly E. lb/hr	Annual E. ton/yr
Dupps Cooker #1	PM	4	3190	8760	2.473	IDAPA	SC & PT	92	0.791	3.465
	PM-10	4	3190	8760	2.473	$PM=PM_{10}$	SC & PT	92	0.791	3.465
Dupps Cooker #2	PM	4	3190	8760	2.473	IDAPA	SC & PT	92	0.791	3.465
	PM-10	4	3190	8760	2.473	$PM=PM_{10}$	SC & PT	92	0.791	3.465
Dupps Cooker #3	PM	4	3190	8760	2.473	IDAPA	SC & PT	92	0.791	3.465
	PM-10	4	3190	8760	2.473	$PM=PM_{10}$	SC & PT	92	0.791	3.465
MidCon Cooker #4	PM	4	3190	8760	2.473	IDAPA	SC & PT	92	0.791	3.465
	PM-10	4	3190	8760	2.473	$PM=PM_{10}$	SC & PT	92	0.791	3.465
Dupps Cooker #5	PM	4	3190	8760	2.473	IDAPA	SC & PT	92	0.791	3.465
	PM-10	4	3190	8760	2.473	$PM=PM_{10}$	SC & PT	92	0.791	3.465
	Total PM								3.956	17.327
	Total PM-10								3.956	17.327

Response to Comments and Questions Submitted During a
Public Comment Period on IBP, Incorporated (Kuna)
Proposed Tier II Operating Permit (OP) for the Entire Facility

COMMENTS AND RESPONSES

COMMENT #1: General Information, Page 1 of 15

The name of the Permittee should be listed as "IBP, Inc." on all pages.

The site address listed in the proposed permit is for the IBP corporate offices. We suggest it would be more appropriate to list the physical address of the plant. This address is:

IBP, Inc.
South Cole Road
P.O. Box 9346
Boise, Idaho 83707
Telephone No. (208) 345-6660

In addition, the contact person for this site should be the Plant Manager, Gary O'Donnell, who may be reached at the aforementioned telephone number.

DEQ RESPONSE: **All the requested changes were incorporated into the Tier II permit.**

COMMENT #2: Boilers, Page 3 of 17

Operating Requirements

We request that there be no limitation on the hours of operation for the boilers. Instead, we propose that #2 fuel oil usage be limited to 2,600,000 gallons per year, with no limitation on natural gas usage. Emissions from the boilers based on these proposed fuel consumption quantities are shown on Attachment A.

Monitoring and Recordkeeping Requirements

Since the hours of operation should not be restricted, we request the only monitoring and recordkeeping performed of these units be a monthly record for the type and amount of fuel used by the boilers.

DEQ RESPONSE: **All the requested changes were incorporated into the Tier II permit.**

COMMENT #3: Heaters, Page 4 of 17

Operating Requirements

We request no limitations be placed on operation of the heaters. Emissions from the heaters based on 8,760 hours of operation are shown on Attachment B.

Monitoring and Recordkeeping Requirements

Given the restrictions placed on other emission sources at the facility, continuous operation of the heaters cannot cause the facility to exceed 100 TPY of any criteria pollutant. Because of thus, it is unnecessary to either monitor the hours of operation or to meter the fuel usage to these small individual heater units. The lack of any necessity to place limitations on the operation of the heaters makes the monitoring and recordkeeping requirements for these units unnecessary.

DEQ RESPONSE: **The requested changes in the *Operating Requirements* were incorporated into the Tier II permit.**

The total NO_x emissions from the heaters is significant. Recording the amount of natural gas consumed by those heaters is important, because it acts as a monitoring tool for the emissions from the heaters, and as an indicator for the proper operation of the heaters. Recording fuel usage eliminates the need for restrictions or recordkeeping on the hours of operation.

COMMENT #4: Generators and Fire Pump

Operating Requirements

Following EPA guidance regarding estimating hours of operation for emergency generators, we request that the hours of operation for each generator and the fire pump be limited to 500 hours per year per unit. Emissions from the generators and fire pump based on these proposed hours of operation are shown on Attachment C.

Monitoring and Recordkeeping Requirements.

We request the only monitoring and recordkeeping requirement for these units be a record of the monthly hours of operation of each unit. We do not consider it practical to monitor fuel usage by each individual unit because of the small volumes of fuel involved.

DEQ RESPONSE: **The requested changes in the *Operating Requirements* and *Monitoring and Recordkeeping* were incorporated into the Tier II permit.**

COMMENT #5: Hide Down Puller, Pages 6 and 7 of 17

Source Description

Please note that the original construction permit application for this unit stated the cyclone scrubber resembles an Airpol Model CV unit, but was not manufactured by that company. We request the cyclone scrubber description be modified to reflect this.

Operating Requirements

Under the "Installation of Monitoring Equipment" section, DEQ is requiring equipment be installed which will "continuously measure the pressure differential...and scrubbing media flow rate." We request clarification on the Department's intentions regarding the type of equipment to be installed for his purpose. Our understanding is the pressure gauges and flow meters that give an instantaneous reading will meet this requirement, and that Continuous Emission Monitoring (CEM) equipment and recorders are not required.

This same comment is offered throughout the draft permit wherever there is a recommend to "continuously measure" a parameter.

DEQ RESPONSE: **The requested changes in the *Source Description* were incorporated into the Tier II permit.**

The installation of monitoring equipment is to measure the pressure differential across the control equipment and the scrubbing media flow rate to the control equipment. While this will not continuously monitor the emissions, it will indicate that the control equipment that was relied upon in establishing this source as a synthetic minor, is operating as designed.

COMMENT #6: Blood Drier, Pages 8 and 9 of 17

Source Description

The blood drier is described in this section as having the capacity to process 1,440 gallons of blood per hour. We request this figure be changed to 4,100 pounds of raw blood per hour, which was claimed in the initial permit application for this equipment.

Emission Limits

We note that the TPY of PM and NOx for the blood drier are based on 8,760 hours of operation, whereas TPY of Co and VOC are not. We request that all emission limitations for this unit be based on 8,760 hours of operation. This request is reflected in the calculated emission values for this unit shown in Attachment E. In addition, a value of Sox emissions is shown in the Attachment that was not shown in the draft permit.

Operating Requirements

Since some of the pollution abatement equipment was custom fabricated, and due to its age, literature regarding manufacturer's specifications for the pressure drop across the venturi scrubber and packed tower is not available. In lieu of this, we request, in instances where manufacturer's specifications are not available, that the pressure drop either be calculated based on equipment design or demonstrated using actual testing. The calculations, assumptions, or test results supporting the determined pressure drop will be made available to the Department.

This same comment is offered throughout the draft permit wherever there is a requirement to have manufacturer's specifications available for pollution abatement equipment.

In the original permit application for the blood drying system, the combined water flow to the knock-out pot and venturi scrubber is 3000 gpm. We request the operating requirement for the venturi scrubber be modified to reflect this.

This same comment is also made for the section of the draft permit regarding "Cookers".

DEQ RESPONSE: **All the requested changes were incorporated into the Tier II permit.**

The technical analysis for the Tier II permit as well as the proposed operating permit show that the IBP, Inc., Kuna is subject to the requirements of IDAPA 16.01.01.835, (Rules for the Control of Air Pollution in Idaho), Rules for Control of Rendering Plants. This rule is incorporated in the *Operating Requirements* of the Blood Dryer.

COMMENT #7: Cookers, Pages 10 and 11 of 17

Emission Limits

TSP and PM10 emissions from the cookers are assumed to have the same value. We not that the Department makes this assumption for emissions from the meat scraps handling operation. Since these systems handle the same product, we request the PM10 values from cooker emissions e changed. This requested change is reflected in the cooker emissions shown in Attachment E.

DEQ RESPONSE: **All the requested changes were incorporated into the Tier II permit.**

The technical analysis for the Tier II permit as well as the proposed operating permit show that the IBP, Inc., Kuna is subject to the requirements of IDAPA 16.01.01.835, (Rules for the Control of Air Pollution in Idaho), Rules for Control of Rendering Plants. This rule is incorporated in the *Operating Requirements* of the Cookers.

COMMENT #8: Meat Scraps Handling & Blood Conveying, Page 12 of 17

Source Description

We request the process description be modified to reflect the load-out facilities for these products are also available outside the rendering building.

DEQ RESPONSE: **All the requested changes were incorporated into the Tier II permit.**

COMMENT #9: Fuel Tanks, Page 13, of 17

Emission Limits

Attachments D.1 - D.3 show emissions from the storage tanks based on the proposed usage of gasoline, diesel fuel, and #2 fuel oil use at the facility. Emissions from the fuel storage tanks are summarized in Attachment E.

DEQ RESPONSE: **All the requested changes were incorporated into the Tier II permit.**

COMMENT #10: Fugitive Emission Sources, Page 14 of 17

Source Description

We request the process description be modified to reflect the existence of unpaved roads at the facility site. However, these unpaved roads are not used by vehicles associated with production activities at the facility.

Emission Limits

We consider the requirement limiting visible fugitive emissions leaving the property to three minutes per hours to be not unreasonable and unattainable. IBP cannot control fugitive dust emissions that may originate off-site and pass. through IBP property, not can this dust be differentiated from dust that originates on-site. The operating requirement proposed for his source is considered sufficient to control fugitive dust without the necessity of specifying an emission limitation.

DEQ RESPONSE: **All the requested changes were incorporated into the Tier II permit.**

COMMENT #11: Implementation Schedule

a 90-day period after permit issuance will be needed to determined pressure drops and to install the necessary monitoring devices on the pollution abatement equipment, as specified in the permit. We request this schedule be included in the final permit.

On the basis of the missions presented in Attachment E, these proposed changed will allow the facility to retain its status as a synthetic minor source and meet Department requirements for demonstrating actual emissions from the facility. We trust that the above thought and comments can be incorporated into IBP's Tier II Operating Permit, and if needed, we look forward to an opportunity to discuss these changes with you.

DEQ RESPONSE: **The requested comment was incorporated into the Tier II permit.**